their tarsi were possibly a little brighter orange. A study of the plumage showed, however, no suggestion of either an eclipse or a nuptial dress. In the third spring the appearance was essentially the same. The surviving male had a dark crown and nape, a buffy throat, fairly well, but not thickly spotted, a greenish yellow bill and orange feet,— not by any means the coral red feet of rubripes. The female had a dark olive-green bill, dirty yellow tarsi and an unspotted buffy throat. Their size was that of the smaller race.

Wood Ducks kept in the same enclosures changed from juvenal to adult plumage, and from eclipse to nuptial plumage, so there seems no reason why Black Ducks should not have changed if it was normal for them to do so. The fact that a pair bred showed they were living under very normal conditions.

That there are distinct racial differences between rubripes and tristis as originally maintained by Mr. Brewster seems to be thoroughly borne out by these observations carried on during three successive springs under very natural conditions. Yet it might be maintained that the period of these observations was too short, or that the confinement interfered with natural conditions. Be that as it may, these observations are offered for what they are worth as a contribution to the study of the subject.

## BIRDS IN THE MARKETS OF SOUTHERN EUROPE.

BY LOUIS B. BISHOP, M.D.

The year from August, 1910, to July last was spent by Mrs. Bishop and myself in travel in western Europe and northern Africa. Ornithology was not our aim, and no actual field-work was done anywhere. But I kept my eyes and ears open for birds during all parts of our trip as opportunity permitted, and it has seemed to me that what I noticed might be of some interest to the members of the Union in view of the remarkable sentiment for bird protection that has arisen in our country in the last few years.

Only once did we stay over two weeks in a place, and that was in Venice, where the birds for sale in the markets proved so interesting that six weeks had passed before I could tear myself away. You all know no doubt that small birds are sold for food in southern Europe, but the extent of this traffic was astounding to me. And in view of this annual destruction I was much interested to learn what I could of how plenty birds are in regions likely to have been affected by this slaughter.

We reached Venice on October 15, for one of us the first visit to what I think the most fascinating city in the world, and for the other a return after nineteen years. Naturally our first days were fully occupied with other matters, but on the morning of October 24 I visited the central market, and what I found there in the bird-line proved so interesting that Oct. 26, 29 and 31 saw me there again, as did Nov. 1, 2, 3, 5, 7, 8, 10, 12, 14, 15, 16, 17, 19, 21 and 22. Birds were there in profusion from Ducks to Kinglets in the early morning, hung in great bunches above the stalls, but by 9 A. M. most of them had been sold. Ducks and Shorebirds occurred in some numbers, but the vast majority were small Sparrows, Larks and Thrushes. These were there during my visits by the thousands if not tens of thousands. To the market they were brought in large sacks, strung in fours on twigs which had been passed through the eyes and then tied. Most of these small birds had been trapped, and on skinning them I often could find no injury except at their eyes. One of these sacks I examined on Nov. 3 contained hundreds of birds, largely Siskins, Skylarks and Bramblings, and the same species constituted the vast majority of a similar sack noticed on Nov. 17, but in the latter there were many Fieldfares. For Oct. 29 my notes say "Market full of small birds, largely Siskins, hanging in bunches by thread passed through neck and head"; on Oct. 31, "Market full of small birds, chiefly Bramblings, but many Chaffinches and Hawfinches." Again on Nov. 8 I write "Market full of fresh small birds," on Nov. 10 "Many large birds"; and on Nov. 14 "Many small birds, chiefly Bramblings and Siskins." As a rule the small birds that were not sold in the early morning were skinned or picked and their tiny bodies packed in regular order, breast up, in shallow tin boxes and exposed for sale.

During these visits to the Venetian markets I identified sixty species, and procured specimens of most. As nearly as I ean remember small birds cost from two to five cents apiece, Thrushes, Shorebirds and Snipe from five to fifteen cents; Coots, Ducks, Partridges and Woodcock from 20 to 60 cents, and Pheasants, of which I saw very few, about \$2.00. For example I paid \$2.15 on Nov. 8 for 1 Woodcock, 1 Jay, 2 Starlings, 2 Spotted Crakes, 1 Song Thrush, 1 Gold-erest, 1 Long-tailed and 1 Great Titmouse. 1 Pipit, 1 Redstart, 1 Skylark, 1 Greenfinch, 1 Bullfinch, 1 Redpoll, 3 Linnets, 2 Goldfinches, 6 Siskins, 3 Reed Buntings, 3 Bramblings and 5 Chaffinehes: and on Nov. 10, \$3.25 for 2 Coots, 1 Water-Rail, 1 Spotted Crake, 1 Sparrow Hawk, 2 Woodcock, 1 Common and 1 Dusky Redshank, 2 Dunlins, 1 European Curlew, 2 Kingfishers, 2 Greenfinches, 2 Wrens, 1 Great and 1 Blue Titmouse, and 1 Redbreast. No doubt I paid over regular rates, as I could speak little Italian and the market men knew I wanted them to stuff.

No Gulls were seen, so apparently they are beyond even the Italian appetite, but a Little Grebe (*Colymbus fluviatilis*) was found once and once a Sparrow Hawk (*Aecipiter nisus*).

Of Ducks, Widgeons (Mareca penelope) were common, and Teal (Nettion erecca), Mallards (Anas platyrhynchos platyrhynchos), Shovellers (Spatula elypeata) and other species occurred more or less frequently. Of the Rails I noted Water Rail (Rallus aquaticus), Spotted Crake (Porzana porzana), Coots (Fulica atra) and Gallinule (Gallinula chloropus). Among the Shorebirds were Woodcoek (Scolopax rusticola), Common and Jack Snipe (Gallinago gallinago and Limnoeryptes gallinula), Greenshanks (Glottis nebularius), Common and Dusky Redshanks (Totanus totanus and Totanus fuscus), European Curlew (Numenius arquatus), Dunlins (Pelidna alpina alpina), Lapwings (Vanellus vanellus) and Blackbreast Plover (Squatarola squatarola).

Of the Grouse and Partridges I noticed Red-legged and Gray Partridges (Caccabis saxatilis and Perdix perdix perdix).

Blackcocks, Pheasants and *Tetrastes bonasia*, Kingfishers (*Alcedo ispida*), I found only once.

Skylarks (Alauda arrensis arrensis) were there in great numbers and sometimes Calandra (Melanocorypha ealandra calandra) and

Crested Larks (Galerida cristata cristata) appeared. Starlings (Sturnus vulgaris vulgaris) were common and there were a few Jays (Garrulus glandarius glandarius). But of all the birds in the market the majority belonged to the great sparrow tribe. Siskins (Spinus pinus), Bramblings (Fringilla montifringilla), Chaffinches (Fringilla cœlebs cœlebs) and Tree Sparrows (Passer montanus montanus) suffered most severely, but I noticed also Hawfinches (Coccothraustes coccothraustes coccothraustes), Bullfinches (Pyrrhula phrrhula europæa), Yellow Hammers (Emberiza citrinella citrinella), Goldfinches (Carduelis carduelis carduelis), Greenfinches (Ligurina chloris chloris), Italian House Sparrows (Passer italiæ), Redpolls (Acanthis linaria linaria), Linnets (Acanthis cannabina cannabina), Crossbills (Loxia curvirostra curvirostra), and Reed Buntings (Emberiza schæniclus schæniclus).

Redbreasts (Erithacus rubecula rubecula) were common and Stonechats (Pratincola torquata rubicola) and Redstarts (Phænicurus ochruros gibraltariensis) rare. Great Titmice (Parus major major) were seen almost daily, and occasionally Blue (Parus cæruleus cæruleus), Coal (Parus ater ater) and the Longtailed (Ægithalos caudatus irbii). Wrens (Troglodytes troglodytes troglodytes) were seen several times and the Goldcrest (Regulus regulus regulus) once. Rock and Meadow Pipits (Anthus spinoletta spinoletta and Anthus pratensis) and White Wagtails (Motacilla alba alba) were uncommon, but the Thrushes, such as the European Blackbird (Merula merula merula), Fieldfare (Turdus pilaris), Redwings (Turdus iliaca) and Song Thrushes (Turdus musica) were all abundant.

That killing song-birds for food is not confined to the poor Italians I learned on Oct. 27, when one of the most prominent and wealthy Italian ornithologists—a delightful man—told me he had shot 180 Skylarks and Pipits the day before, and that his family liked them far better than other game. Our prejudice against selling game does not exist in Europe, and this same ornithologist told me he often shot 200 ducks in a day at his shooting-box, sending to the markets what he could not use himself. On Nov. 1, 1910, he shot 82 ducks and on Nov. 8, 103, chiefly Widgeon and Teal.

In Florence I visited the central market on Nov. 26, 28, 29, 30, Dec. 1, 2, 3, 5, 6, 7, 8 and 9, and found birds even more plenty than

in Venice. Pheasants, Grouse, Partridges (Caccabis petrosa and Perdix perdix perdix), Ducks, Woodcock, and Snipe especially were more abundant than in Venice, probably because Florence is a wealthier city; and Skylarks, Thrushes and Redbreasts were found in very large quantities. Corn Crake (Crex crex), Thickknee (Œdicnemus & adicnemus), Green Sandpiper (Helodromas ochropus), Dotterel (Eudromias morinellus) Golden Ployer (Charadrius apricarius), Magpie (Pica pica pica), Corn Bunting (Emberiza calandra calandra), Migratory Quail (Coturnix coturnix), Green and Spotted Woodpeckers (Gecinus viridis pronus and Druobates major vinetorum), Wood Larks (Lullula arborea), Gray Wagtails (Motacilla boarula boarula), Brown Creeper (Certhia familiaris macrodactyla), Nuthatch (Sitta europæa cæsia), Hedge Sparrow (Prunella modularis modularis), Black-cap, Black-headed and Fantail Warblers (Sylvia atricapilla atricapilla, Sylvia melanocephala melanocephala and Cisticola cisticola cisticola), Missel Thrush (Turdus viscivorus viscivorus), Ring Ouzel (Turdus torquatus alpestris) and Rock Sparrow (Petronia petronia petronia), were species that I had not noticed in Venice. Here too we saw often, bunches and baskets of small birds, chiefly Redbreasts, hawked through the streets, and I saw in the little town of Fiesole on Nov. 27 a bunch of Fieldfares, Redwings and Blackbirds hanging outside a store.

Every Sunday that we went into the country we met numbers of Italians out shooting, and their bags seemed to consist wholly of small birds.

At Genoa, San Remo, Monte Carlo and Nice, between Dec. 13 and 29, I did not visit the central markets, if such exist, but saw frequently bunches of small birds hanging outside stores. The only new species noted was a Blue Rock Thrush (Monticola solitaria solitaria) at Monte Carlo on Dec. 22.

A gentleman who spent the fall in an automobile trip through the west of France from Brittany to the Pyrenness tells me he noticed these bunches of small birds for sale in every town he visited.

In Algiers I visited the markets on several occasions, but saw no birds smaller than Thrushes for sale; but there were plenty of Song Thrushes on Jan. 6, 7, 9 and 11; a Frenchman shooting Thrushes I saw near Algiers on Jan. 2, and two natives with a bag of a Shrike (*Lanius exeubitor algeriensis*) Blackbirds (*Merula merula algira*) Song Thrushes and Redbreasts (*Erithacus rubeeula witherbyi*) we met some twenty miles from Algiers on Jan. 10.

January 17 was market day at Setif on the high plateau in the interior of Algeria, and there I noticed three natives with about 100 Calandra Larks and Skylarks (*Alauda arrensis arrensis* and A. a. cantarella) for sale.

At Biskra, an oasis in the northern border of the Sahara, the natives do not eat birds, so none were for sale in the markets, but I found Sand Grouse (*Pteroeles arenarius*) and Red-legged Partridges at the store of a Frenchman. In Constantine on Feb. 5 and 6, I saw a few Sky and Crested Larks (*Alauda arvensis arvensis* and *Galerida theklæ superflua*) and Song Thrushes in the market, and Thrushes were on the bill of fare at Hammam Meskoutine. Behind the hotel there I noticed on Feb. 8 the feathers of hundreds of Thrushes, Starlings and Blackbirds that had been plucked for the guests.

In Tunis I visited the large central market — one of the finest I saw abroad — on Feb. 11, 12, 13, 14, 17, 18, 19 and 20, and found it to contain hundreds of Starlings (Sturnus vulgaris vulgaris) Sky, Crested and Calandra Larks (Alauda arrensis cantarella, Galerida cristata maerorhyneha and Galerida theklæ harterti) and Song Thrushes, besides an abundance of what we consider game.

In Sicily Mr. Whitaker, the eminent English ornithologist, told me small birds were not sold in the markets, but between Feb. 23 and March 12 we frequently saw men out hunting especially on Sundays.

At Naples on Sunday, March 19, Plover was served on the hotel table, and we noticed a man out in the country with a gun. On March 20, I saw a man with a bunch of Ruffs (Machetes pugnax), Black-tailed Godwits (Limosa limosa), Lapwings and small birds for sale, and on March 16 on the Via Roma, the busiest street of the city, we met a man with a number of Greenfinches sitting on his arms and shoulders. To a cursory glance, these birds seemed well but stupid. Why they did not fly away, for their wings were uninjured, is probably explained by the following clipping from the Italian Gazette for Dec. 1, 1910, an English paper published in Florence.

## "The Blinded Birds.

In consequence of a letter which appeared in our issue of October 27, the Florence Society wrote to the head of the Municipal police. Cav. Grasselli, calling his attention to the fact that in spite of the iniunction issued by the Commissario Prefettizio, blinded birds were still being sold in the Commune of Florence, namely, in a shop in the centre of the town. The Municipal police at once received orders to see that the injunction was respected, and a number of fines quickly put a stop to the surreptitious traffic.

When the Commissario (Cav. Ferrara) took the step of prohibiting the blinding of birds and the sale of those already maimed, the Florence Society sent a copy of his circular to all the municipalities in the province, asking them to follow suit. To their honor four — the communes of Fiesole, Tavarnuzze, Cutigliana and Pontassieve — readily expressed their intention of doing so. but the remainder have treated the request with indifference.

But even should the Municipal authorities be backward in carrying out the law, it is in the power of anyone to denounce to the Municipal police of any commune acts of cruelty of this kind and to exact a prosecution. The Pretor of Arezzo, Signor De Santis, recently fined a man 100 lire, the maximum, on the information of a private individual, and that sentence is a precedent which cannot be ignored.

No doubt the practice of blinding birds will come to an end in Florence and the neighborhood. When the birds thus treated can no longer be put on sale without the risk of a fine, it will interest no one to commit such a horror. The birds were blinded chiefly in spring, though the Florence Society has information that cases have occurred even in winter."

In Rome Partridges were served at the hotel in early April; April 10 I saw a man out shooting between Rome and Florence, and in the market at Florence on April 11 were large numbers of Pheasants, Woodcock, Snipe, Redshanks and other Shorebirds, but no small birds, as it is against the law to sell them at that time.

At Dresden on May 18 and Halle on May 25, Gulls' eggs were for sale in the markets, and game was on the bill-of-fare in Dresden. Our last experience with game on the table was on July 4, when "Delaware Snipe" was served on the steamer some few hundred miles out of New York.

In England at Flamboro Head in Yorkshire on June 19, eggers were taking for market the eggs of Murres, Razor-billed Auks, Puffins, and Kittiwakes, as they have for generations, and the English treatment of the Wood Pigeon the following extracts from the "London Daily Mail" for last March will show.

## "Pigeon Plague Slaughter in the Isle of Wight.

A great slaughter of wood pigeons took place yesterday all over the Isle of Wight, where farmers have suffered severely from the depredations of the birds. It is estimated that quite a thousand guns were enrolled for the campaign, among them being landowners, occupiers and shooting tenants, who were publicly invited to take part. The guns were stationed in woods and coppices over a wide area during the afternoon, and they remained there until dark. Some large bags were obtained.

In the neighbourhood of Saffron Walden, Essex, another district where the birds are a plague, farmers, sportsmen and gamekeepers, will tomorrow renew the combined attack of Saturday last upon marauding flights of wood pigeons. Last Saturday nearly 200 guns turned out. Tomorrow it is expected that nearly double the number will take up the assault.

The lesson of the efficacy of such an assault was first taught by the farmers of Devon and Somerset a few years ago, when great combined shoots were organized as a result of the havoc wrought by these feathered aliens among the green crops of the neighbourhood. Many thousands of wood pigeons fell as a result, and the plague was considerably minimised, if not absolutely brought to an end, over a large area of country.

The plan of campaign last Saturday was to make a simultaneous attack on the birds as they returned in the late afternoon from the fields to their roosting-trees.

It was decided to man all likely places which the birds might pass on their homeward flight, and many such places were manned. The destruction already wrought shows the wisdom of combination in this direction, and the two more Saturday assaults which will complete the campaign should, with good tactics, complete its success."

## "War on Wood Pigeons.

The war against wood pigeons was continued in nearly all the southern counties yesterday.

'Our advice to all farmers who are suffering from the plague of the birds is, "Shoot them." Mr. A. G. L. Rogers, of the Intelligence Department of the Board of Agriculture and Fisheries, told a 'Daily Mail' representative.

'It is best to get at them either at day-break or sunset, and scare them out of their roosting places, or the haunts they flock to for water. Half-measures are not much use; wholesale extermination is the policy if the farmer wishes to preserve his crop.

'In the north they are not troubled anything like to the same extent. There is not the same temptation as in the south. They flock to the southern counties because there is far more in the shape of food-stuff.'"

How great is the destruction of small birds at the hands of man in Europe and northern Africa these pages will give an idea, but of the actual number, especially of Skylarks, slaughtered for food no computation is possible. It probably reaches the hundred thousand. And this destruction of small birds during the migration for food by the Italians has been going on for years. Mr. E. A. Samuels in "Mammalogy and Ornithology of New England," published in 1863, quotes Frederick de Tschudi, the president of the Agricultural Society of Canton St. Gall, Switzerland, as writing "At the period of their spring migration, and still more in autumn. Italians are seized with a mania for killing small birds." "To form some idea of the slaughter which for weeks together is the chief delight of the people of Italy it is sufficient to mention that in one district on the shores of the Lago Maggiore the number of small birds annually destroyed amounts to between 60,000 and 70,000, and that in Lombardy, in one single roccolo, 15,000 birds are often captured daily. In the neighborhood of Bergamo, Verona and Brescia, several millions of birds are slaughtered every autumn."

In Bird-Lore for July-August, 1907, Mr. Francis H. Herrick

gives Signor Nigro Licò as quoting "It is estimated that in all Italy the annual hecatomb amounts to ten millions of individuals, among which the Landsteiner of Wiholsburg reckons three millions Swallows," and also as saying "if after all this there can still regularly occur that enormous slaughter of millions of little birds, so that they can be seen in the markets like sacs full of grain, then why condemn absolutely hunting by means of nets, since by this very showing the method of hunting has not yet caused grave damage?"

But what of the reverse of the shield? Are small birds rare or common throughout Europe? This I tried to determine as far as I could in the limited opportunities at my disposal, for most of our time was spent in large cities, and the trip to Flamboro Head in June was the only one taken in which birds were the object sought. On our walks or drives in the country I noticed the relative abundance of birds as far as possible, and trust the following brief extracts from my note-book may be of interest.

Of the ten days in the beginning of September, 1910, which we spent in England, six were devoted to London, still I note that Lapwings, Rooks, Wood Pigeons and many small birds were plenty near Chester, and that "I have been impressed by the great abundance of birds in England as seen from the train and driving, in spite of cloudy weather." At Lucerne on Sept. 21 large Swifts were seen, at Oberammergau on the 24th, Coal Titmice and Gold-crests; Mallards were common and tame at König See on October 11, and we met a large flock of Bramblings at Innsbruck on the 13th.

During our stay in Venice, Black-headed Gulls (Larus ridibundus) frequently were abundant in the Grand Canal, and Starlings and Italian House Sparrows were often noticed. Birds were not plenty along the Reviera, Dec. 19 to 25 as a rule, but we noticed many small ones in the shrubbery at Monaco on Dec. 20, and a large flock of some very noisy species in some trees at Mentone on Dec. 22. In the groves and bushes in the outskirts of Algiers small birds were abundant during the first part of January and among them I identified Crossbills. In the open country further from the city, Skylarks and Pipits were numerous, and on an automobile trip of about 80 miles which we took on Jan. 10, I wrote "Country

open and full of birds of many species." In the Kabyle country in the Atlas mountains, where we were Jan. 14 to 16, birds were not very plenty, but I noticed Common Crows, Kestrels and Harriers from the train, and a very large flock apparently of Thrushes collecting in a wooded swamp toward evening. On the open plains of the high plateau of Algeria, across which we passed by train, birds were not very common, as was to be expected in such a country in the depth of winter; still I noticed frequent flocks of small birds and was able to identify Skylarks and White Wagtails. In the palm-groves of Biskra small birds were again plenty, and some at least were European species.

Farther east in the interior of Algeria I noticed from the train on Feb. 3, very many Lapwings and Common Crows and large flocks of small birds, and small birds were abundant at Hammam Meskoutine on Feb. 8. On Feb. 11 I note "saw many birds, largely larks, near Carthage," and on Feb. 15 and 16, during an automobile trip of some 150 miles between Kairouan and Tunis, I write "saw great numbers of Larks, Sky, Crested and Calandra, very large flock of Ducks, also Lapwings and other species." Both these days at Kairouan and Tunis we had Larks for dinner.

In Sicily small birds seemed by no means abundant, as might be expected from the generally treeless and bushless landscape, but in the old quarries at Syracuse, now filled with luxuriant vegetation, birds were again abundant. Near Naples the latter part of March birds seemed uncommon, and the same was true of the trip from Naples to Rome, and from Rome to Florence; but Kestrels (Falco tinnunculus), appeared to be breeding in the capitals of the pillars at St. Peter's at Rome on April 4, others in the niches in the Leaning Tower at Bologna on April 20, and still others in the Amphitheatre at Verona on April 26. In the environs of Ravenna on April 18, from the train between Ravenna and Milan, Milan and Como, and from Milan to Venice, and about the Italian Lakes especially the latter part of April, birds were plenty, and I wrote "noticed birds fully as frequently as at home." In Venice the last of April large Swifts wheeled over the canal and buildings in good numbers, and there were many birds in the Public Gardens on April 27. At Kahlenburg near Vienna on May 13, and at Babelsburg near Berlin on May 17, birds were abundant, and I noted in short walks, Blackbirds, Chaffinches, Starlings and several species of Tits, and none of the vegetation showed any sign of injury by insects.

We reached England in early June, but except for a short trip to Flamboro Head in Yorkshire, and a couple of days at Southampton, during which we visited the New Forest, our time was spent in London, and even in London Wood Pigeons were common in the parks. But one cannot visit rural England at all, either by train, motor, carriage or on foot, without being impressed by the abundance of birds; birds are everywhere, Lapwings fly out of almost every field, in spite of the fact that their eggs have been sold as delicacies for generations, Skylarks are constantly in the air. Rooks dot the landscape with black, and thousands of sea-birds line the cliffs at Flamboro Head although their eggs are collected each day. My impressions at the conclusion of our long journey, as I wrote them at the time, were that "birds are quite as abundant in Europe and especially in England as with us, and I have been greatly impressed by the absence of insects and worms everywhere, along the roadsides, in the parks and woods and in the fields. No worms hanging from the trees, no mosquitoes, no aphides on the roses, and nothing showing signs of having been eaten; all so different from our country in June."

Why this is so, that after the great slaughter in fall and winter birds are so abundant in spring and summer I cannot explain, but both of us commented on the fact that we almost never saw a cat.